

What is claimed is:

1. A tip optical element for immersion microscope objectives, comprising a first optical element and a second optical element, cemented to each other, wherein an annular light-blocking area is provided on an interface between the first optical element and the second optical element.

2. A tip optical element for immersion microscope objectives, comprising a first optical element and a second optical element, wherein a light-blocking area is formed on a surface of one of the first optical element and the second optical element so as to avoid blocking an effective beam, and the first optical element and the second optical element are cemented to each other, with the surface on which the light-blocking area is formed, sandwiched between the first optical element and the second optical element.

3. A tip optical element for immersion microscope objectives, comprising a first optical element, a second optical element, and a third optical element, wherein a light-blocking area is formed on a surface of one of the first optical element and the second optical element so as to avoid blocking an effective beam; the first optical element and the second optical element are cemented to each other, with a surface on which the light-blocking area is formed, sandwiched between the first optical element and the second optical element; and the third optical element is embedded at a center of the first optical element and the second optical element.

4. A tip optical element for immersion microscope objectives according to claim 1, wherein a concave portion is formed a center of the first optical element and the sec-

ond optical element.

5. A tip optical element for immersion microscope objectives according to any one of claims 1-4, wherein the light-blocking area is formed of one of an evaporated metal film, a painted material, and a metal leaf.

6. A tip optical element for immersion microscope objectives according to claim 3, wherein the third optical element is a minute lens which is different in dispersion and refractive index from the first optical element and the second optical element.

7. A method of making a tip optical element for immersion microscope objectives, comprising the steps of:

placing beam restricting means on a surface of one of a first optical element and a second optical element;

5 providing a light-transmitting area transmitting an effective beam and a light-blocking area formed around the light-transmitting area to the beam restricting means; and

cementing the first optical element and the second optical element to each other, with the beam restricting means sandwiched between the first optical element and the
10 second optical element.

8. A method of making a tip optical element for immersion microscope objectives, comprising the steps of:

forming a light-blocking area on a surface of one of a first optical element and a second optical element so as to avoid blocking an effective beam;

5 cementing the first optical element and the second optical element to each other, with

the light-blocking area sandwiched between the first optical element and the second optical element;

forming a concave portion at a center of the first optical element and the second optical element; and

10 embedding a third optical element in the concave portion.